

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 8524 (1977): Solar Wax Extractor [FAD 3: Apiary Industry]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



IS : 8524 - 1977

*Indian Standard*  
SPECIFICATION FOR  
SOLAR WAX EXTRACTOR

UDC 638.171.3



© Copyright 1977

INDIAN STANDARDS INSTITUTION  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

Price Rs 5.00

November 1977

# Indian Standard

## SPECIFICATION FOR SOLAR WAX EXTRACTOR

Apiary Industry Sectional Committee, AFDC 11

<i>Chairman</i>	<i>Representing</i>
DR G. B. DEODIKAR	Khadi & Village Industries Commission, Bombay
<i>Members</i>	
SHRI D. S. CHADHA	Central Committee for Food Standards ( Ministry of Health and Family Welfare ), New Delhi
SMT DEBI MUKHERJEE ( <i>Alternate</i> )	
DIRECTOR OF LABORATORIES	Directorate of Marketing and Inspection, Faridabad
SHRI K. N. RUSTAGI ( <i>Alternate</i> )	
DR N. P. GOYAL	Punjab Agricultural University, Ludhiana
SHRI B. P. GUPTA	Directorate of Fruit Utilization, Government of Uttar Pradesh, Ranikhet
SHRI K. M. JOYAPPA	Department of Industries & Commerce, Government of Karnataka, Bangalore
APICULTURAL DEVELOPMENT OFFICER ( <i>Alternate</i> )	
DR R. P. KAPIL	Haryana Agricultural University, Hissar
DR D. S. GUPTA ( <i>Alternate</i> )	
SHRI J. L. KAW	J & K Khadi and Village Industries Board, Srinagar
SHRI O. P. KRISHNA	Department of Agriculture, Government of Himachal Pradesh, Simla
SHRI JOGINDER SINGH ( <i>Alternate</i> )	
DR N. C. PANT	Indian Agricultural Research Institute ( ICAR ), New Delhi
PRESIDENT	Coorg Honey and Wax Producers' Co-operative Marketing Society Ltd, Virajpet
DIRECTOR ( <i>Alternate</i> )	
SECRETARY	Sambay Kutir Shilpanusthan Ltd, Sibsagar
SHRI P. L. SHARMA	Himachal Pradesh University, College of Agriculture, Solan
SHRI S. G. SHENDE	Maharashtra State Khadi & Village Industries Board, Bombay
SHRI C. S. Bhambure ( <i>Alternate</i> )	
SHRI S. G. SHENDE	All India Bee-Keepers' Association, Pune
DR R. P. Kapil ( <i>Alternate</i> )	

( Continued on page 2 )

© Copyright 1977

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* ( XIV of 1957 ) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

( Continued from page 1 )

*Members*

SPECIAL OFFICER

DR M. SWALEH

DR R. M. BERRY ( *Alternate* )

DR I. N. TANDON

SHRI YOGESHWAR SINGH ( *Alternate* )

SHRI C. V. THAKAR

SHRI K. V. TONAPI ( *Alternate* )

SHRI T. PURNANANDAM,

Deputy Director ( Agri & Food )

*Representing*

Martandam Bee-Keepers' Co-operative Society  
Ltd, Martandam

Forest Research Institute & Colleges, Dehra Dun

Government Beekeeping Station, Jeolikote

Khadi & Village Industries Commission, Bombay

Director General, ISI ( *Ex-officio Member* )

*Secretary*

SHRI MANOHAR T. SANTWANI  
Deputy Director ( Agri & Food ), ISI

Beekeeping Equipment Subcommittee, AFDC 11:2

*Convener*

SHRI C. V. THAKAR

Khadi & Village Industries Commission, Bombay

*Members*

SHRI K. M. JOYAPPA

Department of Industries & Commerce, Govern-  
ment of Karnataka, Bangalore

SHRI J. L. KAW

J & K Khadi and Village Industries Board,  
Srinagar

SHRI O. P. KRISHNA

Department of Agriculture Government of  
Himachal Pradesh, Simla

SHRI JOGINDER SINGH ( *Alternate* )

SHRI BIMALENDU MONDAL

24 Parganas Bee-Keepers' Co-operative Society  
Ltd, 24 Parganas ( West Bengal )

SHRI R. P. PHADKE

Khadi & Village Industries Commission, Bombay

SHRI A. M. SHAH

All India Bee-Keepers' Association, Pune

SHRI TIRATH RAM ( *Alternate* )

SHRI P. L. SHARMA

Himachal Pradesh University, College of  
Agriculture, Solan

SHRI S. G. SHENDE

Maharashtra State Khadi & Village Industries  
Board, Bombay

# *Indian Standard*

## SPECIFICATION FOR SOLAR WAX EXTRACTOR

### 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 12 August 1977, after the draft finalised by the Apiary Industry Sectional Committee had been approved by the Agricultural and Food Products Division Council.

**0.2** Waxes secreted by different species of honey-bees have different physico-chemical characteristics and it is, therefore, advisable to extract the waxes from different Indian species separately instead of mixing them together. The uses of beeswaxes are numerous, pharmaceutical and cosmetic industries being the biggest consumers of beeswax.

**0.2.1** It is estimated that bees consume about 8 to 10 kg of honey and secrete 1 kg of wax. Old wax-combs which are neglected by bees are often attacked and eaten away by wax worms which is a loss to the beekeeper. Such old combs should not be left either in hives or open in the apiary, but wax should be extracted from them as early as possible.

**0.3** The advantages of solar wax extraction method outweigh the other method of extraction as the wax is melted and bleached to some extent and there is no deterioration of the physical or chemical properties of waxes. In our country there is considerable sunlight during the major part of the year and the solar wax extractor is a valuable equipment for the beekeeper. The old wax-combs, bridge or burr combs or cappings wax are soaked in water to remove water-soluble matter and are then placed in solar wax extractor kept in an inclined position facing the sun. The melted wax slowly flows out and accumulates in the wax receptacle.

**0.4** In preparing this standard, considerable assistance has been rendered by the Central Bee Research Institute, Pune of the Khadi and Village Industries Commission.

**0.5** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

---

\*Rules for rounding of numerical values (*revised*).

## 1. SCOPE

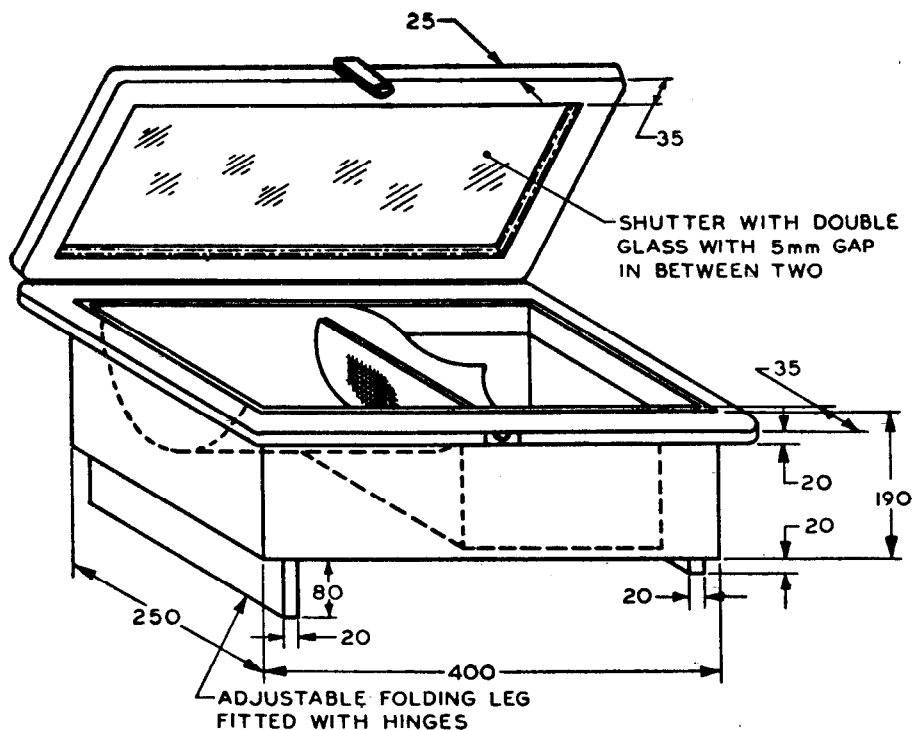
1.1 This standard prescribes the requirements for solar wax extractor used for extracting beeswax from the wax-combs of honey-bees.

## 2. MATERIAL

2.1 The timber used shall be well-seasoned and non-warping, like (a) teak (*Tectona grandis* Linn f.), (b) piney (*Hardwickia pinnata* Roxb.), (c) pine (*Pinus longifolia*) or Toon (*Cedrela toona* Roxb.).

## 3. SHAPE AND DIMENSIONS

3.1 The shape and dimensions of the solar wax extractor should, as far as possible, be as given in Fig. 1.



All dimensions in millimetres.

FIG. 1 SOLAR WAX EXTRACTOR



## 4. ESSENTIAL PARTS

**4.1 Outer Wooden Case** — This should be made out of 25 mm planks of well-seasoned wood. The case should be of 400 mm length, 250 mm breadth and 200 mm height ( *see* Fig. 1 ). This case should be lined from inside with tinplate of 0.5 mm thickness.

**4.2 Cover** — The cover for this case fitted with three hinges of 80 mm each should have a double glass fitted within the wooden frames. The thickness of the glass sheets shall be 1.5 to 2 mm and the space between the two glass sheets should be 5 mm. At the bottom of the case, adjustable folding leg-strip of 20 × 80 mm should be fitted with two hinges. When unfolded, this raises the height of the wooden case on one side and makes it inclined for flow of the melted wax. The wooden case should be painted in black from outside.

**4.3 Semi-circular Tray** — This should be made from 0.71 mm thick tin sheets. On one side, it shall be fitted with 0.4 mm thick wire-gauze. From the place where wire-gauze is fitted, the tinplate should be cut to get a beak to this semi-circular tray. Wax-combs should be put in this tray for melting. The flat and metal strips of the tray rest on the edges of the upper frame of the wooden case.

**4.4 Wax Receptacle** — This should be a rectangular tray of about 250 mm length, 200 mm breadth and 100 mm height which should be kept below the beak of the circular tray. When in use, small quantity of water should be put in this tray so that melted wax floats over it and can be removed easily on solidification.

## 5. WORKMANSHIP AND FINISH

**5.1** The solar wax extractor should be strong to withstand handling. The glass sheets should be fitted snugly. It shall be finished smooth and when the cover is put on the extractor there should be no slits anywhere between the wooden case and the cover. The extractor should be air-tight so that the heat created inside should not be lost due to convection currents. It should be painted in good black colour to absorb maximum heat.

## 6. MARKING

**6.1** Each extractor shall be marked with the following particulars:

- a) Manufacturer's name or recognized trade-mark,
- b) Year of manufacture, and
- c) Batch or code number.

**6.2** Each extractor may also be marked with the ISI Certification Mark.

NOTE — The use of ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

**7. PACKING**

**7.1** Each extractor shall be suitably packed as agreed to between the purchaser and the manufacturer.